

REMARKS

Claims 1-6, 9-13, 24-39, 41-48, 61-72 and 74 are pending. Claims 24-31 and 61 are withdrawn from consideration. Claims 1-6, 9-13, 32-39 and 41-48 are allowed. Claims 63-68 are objected to, but would be allowable if rewritten in independent form. Examination and reconsideration of all pending claims is respectfully requested.

Discussion

Claims 62-72 and 74 were rejected as being allegedly anticipated by U.S. Patent No. 6,638,233 to Corvi et al. ("Corvi"). Claims 62, 69-72 and 74 were rejected as being anticipated by U.S. Patent No. 4,979,951 to Simpson ("Simpson").

Applicant submits that amended independent claim 62 is patentably distinguishable from Corvi since Corvi does not disclose or suggest "advancing the catheter in a distal direction to move the rotating cutter through occlusive material in the body lumen while the cutter is rotating." Referring to Figs. 3 and 4 of Corvi, the needle 74 of Corvi does not rotate while cutting through the occlusive material as claimed and nowhere does Corvi disclose or suggest rotating the needle 74 while cutting through the occlusive material.

Applicant submits that amended independent claim 62 is also allowable over Corvi since Corvi does not disclose or suggest "the occlusive material cut by the rotating cutter being directed through the cutting window and into the collection chamber distal to the rotating cutter as the catheter is advanced in the distal direction through the occlusive material." Material cut by the curved needle 74 collects beneath the needle 74 rather than distal to the needle, as is claimed. The curved shape of the needle 74 of Corvi clearly directs tissue beneath the needle 74 rather than "distal to" the cutting element as claimed.

Amended independent claim 69 is allowable over Corvi since Corvi does not disclose or suggest “rotating the cutter” and “advancing the debulking catheter in a distal direction after the exposing step and during the rotating step.” As discussed above, the needle 74 of Corvi does not rotate when being advanced through the occlusive material and Applicants submit that it would not have been obvious to do so.

Amended claim 69 is also allowable over Corvi since Corvi does not disclose or suggest that “material cut by the rotating cutter is directed through the opening and into the collection chamber distal to the rotating cutter as the catheter is advanced.” Once again, the tissue cut by the needle 74 of Corvi is directed beneath the needle 74 rather than distal to the rotating cutting element as claimed.

Amended independent claim 62 is allowable over Simpson since Simpson does not disclose or suggest “providing a catheter having a rotating cutter ... the rotating cutter being movable between a stored position and an exposed position, at least part of the rotating cutter becoming exposed through the cutting window when moving to the exposed position.” The cutting element of Simpson is not movable to the claimed “exposed position” since the cutting element lies beneath the cutting window at all times.

Amended independent claim 62 is also allowable over Simpson since Simpson does not disclose or suggest “advancing the catheter in a distal direction to move the rotating cutter through occlusive material in the body lumen ... the occlusive material cut by the rotating cutter being directed through the cutting window and into the collection chamber distal to the rotating cutter as the catheter is advanced in the distal direction through the occlusive material.” Nowhere does Simpson disclose or suggest advancing the catheter in a distal direction to cut tissue let alone cutting tissue while the cutter is in the claimed “exposed position.”

Applicant submit that it would not have been obvious to move the catheter of Simpson in a distal direction when cutting through occlusive material since Simpson clearly fixes the position of the catheter with the balloon when cutting tissue. Simpson discloses inflating the balloon “to force the housing 112 firmly into engagement with the atheroma 93 and particularly so that a substantial portion of the atheroma is positioned in the cutout 14” (col. 5, lines 35-40). Simpson further states that the “inflated balloon serves to maintain the housing in engagement with the atheroma 93 so that it will not be pushed away from the atheroma 93 as the cutting means 31 engages the atheroma” (col. 6, lines 6-10). As such, Applicant submits that Simpson clearly fixes the position of the catheter when cutting atheroma as opposed to the claimed method step of “advancing the catheter in a distal direction to move the rotating cutter through occlusive material in the body lumen.”

Applicants further submits that Simpson teaches away from advancing the catheter in a distal direction during cutting of the atheroma since Simpson explicitly discloses that the balloon is intended to prevent movement during cutting. Applicants further submit that it would not have been obvious to move the catheter of Simpson in a distal direction while cutting since such a modification would likely render Simpson inoperable. Simpson inflates the balloon not only to fix the position of the catheter but also to move tissue into the cutting window. Thus, if the balloon were not inflated to fix the position of the catheter then Applicant submits that far less tissue, if any, would enter the cutting window. As such, Applicant submits that moving the catheter of Simpson while cutting atheroma clearly would not have been obvious.

Dependent claims 70 and 72-74 are allowable since they depend from allowable independent claim 69 and because they recite independently patentable features. For example, dependent claim 74 recites that “the advancing step is carried out with the rotating cutter remaining in the exposed position so that the cutter and opening move together while cutting the material from the vascular location” which is not disclosed or suggested by the cited references.

HIMANSHU PATEL *et al.*
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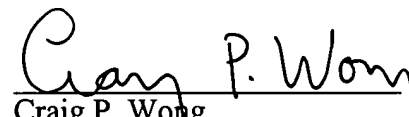
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CONCLUSION

Applicants believe the claims are now in condition for allowance and respectfully request an action to that end. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 206-467-9600.

Respectfully submitted,

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